

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-19. (Canceled)

20. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in a first evaporation chamber;

providing a second evaporation source in a second evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the first evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate wherein the relative position of the substrate is repeatedly moved with respect to the first evaporation source during the evaporation of the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the substrate from the first evaporation chamber into the second evaporation chamber after the deposition of the first material;

evaporating a second material from said second evaporation source to deposit said second material over the substrate wherein the relative position of the substrate is moved with respect to the second evaporation source during the evaporation of the second material.

21. (Previously Presented). The method according to claim 20 further comprising a step of cleaning an inside of the first and second evaporation chambers, respectively.

22. (Previously Presented) The method according to claim 20 wherein said first and second evaporation chambers are connected to each other through a conveyor chamber.

23-36. (Canceled)

37. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber; and

repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice.

38. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first

material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber; and

repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate.

39. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in an evaporation chamber wherein the first evaporation source comprises a plurality of first evaporation cells arranged along a first direction;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein the second evaporation source comprises a plurality of second evaporation cells;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material so that the plurality of second evaporation cells are arranged in the first direction;

evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber.

40. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in an evaporation chamber wherein the first evaporation source comprises a plurality of first evaporation cells arranged along a first direction;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein the second evaporation source comprises a plurality of second evaporation cells;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the first evaporation source with respect to the substrate along a second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material so that the plurality of second evaporation cells are arranged in the first direction;

evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate.

41-42. (Canceled)

43. (Previously presented) The method according to claim 37 wherein said second direction is orthogonal to the first direction.

44. (Previously Presented) The method according to claim 20 wherein the relative position of the first evaporation source is moved with respect to the substrate in a direction orthogonal to an elongation direction of the first evaporation source.

45. (Previously Presented) The method according to claim 20 wherein the relative position of the second evaporation source is moved with respect to the substrate in a direction orthogonal to an elongation direction of the second evaporation source.

46-47. (Canceled)

48. (Previously Presented) The method according to any one of claims 20 and 37-40 wherein at least one of the first and second materials is comprises an organic material.

49. (Previously presented) The method according to claim 20 wherein said display device is an active matrix electroluminescence display device.

50-52. (Canceled)

53. (Previously Presented) The method according to any one of claims 37 and 39 wherein the relative position of the first evaporation source is repeatedly moved with respect to the substrate so that a same portion of the substrate is coated with the first material at least twice.

54. (Previously presented) A method of manufacturing a display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber;

repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber.

55. (Previously presented) A method of manufacturing a display device comprising:

- providing a first evaporation source in an evaporation chamber;
- providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;
- disposing a substrate in the evaporation chamber;
- fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;
- evaporating a first material from said first evaporation source to deposit said first material over the substrate in the evaporation chamber;
- repeatedly moving the relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;
- transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;
- evaporating a second material from said second evaporation source to deposit said second material over the substrate in the evaporation chamber;
- repeatedly moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second

material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate.

56. (Previously presented) The method according to claim 38 wherein said second direction is orthogonal to the first direction.

57. (Previously presented) The method according to claim 39 wherein said second direction is orthogonal to the first direction.

58. (Previously presented) The method according to claim 40 wherein said second direction is orthogonal to the first direction.

59. (Previously presented) The method according to claim 37 wherein said display device is an active matrix electroluminescence display device.

60. (Previously presented) The method according to claim 38 wherein said display device is an active matrix electroluminescence display device.

61. (Previously presented) The method according to claim 39 wherein said display device is an active matrix electroluminescence display device.

62. (Previously presented) The method according to claim 40 wherein said display device is an active matrix electroluminescence display device.

63. (Previously presented) The method according to claim 20 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

64. (Previously presented) The method according to claim 37 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

65. (Previously presented) The method according to claim 38 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

66. (Previously presented) The method according to claim 39 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

67. (Previously presented) The method according to claim 40 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

68. (Previously presented) The method according to claim 54 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

69. (Previously presented) The method according to claim 55 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or a linear shape region is maintained by using the first evaporation source during the evaporation.

70. (Previously presented) The method according to claim 20 wherein said first and second evaporation chambers are connected with each other through at least one gate.

71. (Previously presented) The method according to claim 54 wherein at least one of the first and second materials comprises an organic material.

72. (Previously presented) The method according to claim 55 wherein at least one of the first and second materials comprises an organic material.

73. (Previously presented) The method according to claim 20 wherein the mask fixed to a mask holder approaches the substrate by a magnet field.

74. (Previously presented) The method according to claim 20 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

75. (Previously presented) The method according to claim 37 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

76. (Previously presented) The method according to claim 38 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

77. (Previously presented) The method according to claim 39 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

78. (Previously presented) The method according to claim 40 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

79. (Previously presented) The method according to claim 54 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

80. (Previously presented) The method according to claim 55 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

81. (Previously presented) A method of manufacturing a display device comprising:
providing a first evaporation source in a first evaporation chamber;
providing a second evaporation source in a second evaporation chamber wherein
each of the first and second evaporation sources has a first direction and a second direction.

different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the first evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from said first evaporation source to deposit a hole injecting layer over the substrate wherein the relative position of the substrate is repeatedly moved with respect to the first evaporation source during the evaporation of the first material in order that a same portion of the substrate is coated with the material at least twice;

transferring the substrate from the first evaporation chamber into the second evaporation chamber after the deposition of the first material; and

evaporating a second material from said second evaporation source to deposit a light emitting layer over the hole injecting layer wherein the relative position of the substrate is moved with respect to the second evaporation source during the evaporation of the second material in the second evaporation chamber.

82. (Previously presented) The method according to claim 81 wherein the hole injecting layer comprises an organic material.

83. (Previously presented) The method according to claim 81 wherein the light emitting layer comprises an organic material.

84. (Previously presented) The method according to claim 81 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

85. (Previously presented) A method of manufacturing a display device comprising:

- providing a first evaporation source in a first evaporation chamber;
- providing a second evaporation source in a second evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;
- disposing a substrate in the first evaporation chamber;
- fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;
- evaporating a first material from said first evaporation source to deposit a hole injecting layer over the substrate wherein the relative position of the substrate is repeatedly moved with respect to the first evaporation source during the evaporation of the first material in order that a same portion of the substrate is coated with the material at least twice;
- transferring the substrate from the first evaporation chamber into the second evaporation chamber after the deposition of the first material;
- evaporating a second material from said second evaporation source to deposit a light emitting layer over the hole injecting layer wherein the relative position of the substrate is moved with respect to the second evaporation source during the evaporation of the second material;
- forming a conducting film by evaporation over the light emitting layer; and
- sealing the light emitting layer by sealing material without exposure to the atmosphere.

86. (Previously presented) The method according to claim 85 wherein the hole injecting layer comprises an organic material.

87. (Previously presented) The method according to claim 85 wherein the light emitting layer comprises an organic material.

88. (Previously presented) The method according to claim 85 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

89. (Previously presented) A method of manufacturing a display device comprising:
providing a first evaporation source and a second evaporation source in an evaporation chamber, wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit said first material over a first pixel portion of the substrate in the evaporation chamber;

moving the relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material;

moving the mask by one pixel portion;

evaporating a second material from said second evaporation source to deposit said second material over a second pixel portion in the evaporation chamber; and

moving the relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material.

90. (Previously presented) The method according to claim 89 wherein at least one of the first and second materials comprises an organic material.

91. (Previously presented) The method according to claim 89 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

92. (Previously presented) A method of manufacturing a display device comprising:

providing an evaporation source in an evaporation chamber, wherein the evaporation source has a first direction and a second direction different from each other, the evaporation source being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the evaporation source; and

evaporating a material from the evaporation source to form a hole injecting layer over the substrate wherein the relative position of the substrate is moved with respect to the evaporation source during the evaporation of the material.

93. (Previously presented) The method according to claim 92 wherein the hole injecting layer comprises an organic material.

94. (Previously presented) The method according to claim 92 wherein the evaporation source has a length exceeding 300 mm along the first direction.

95. (Previously presented) A method of manufacturing a display device comprising:

- providing an evaporation source in an evaporation chamber, wherein the evaporation source has a first direction and a second direction different from each other, the evaporation source being longer in the first direction than in the second direction;
- disposing a substrate in the evaporation chamber;
- fixing a mask to the substrate wherein the mask is located between the substrate and the evaporation source;
- evaporating a material from said the evaporation source to form a light emitting layer over the substrate wherein the relative position of the substrate is moved with respect to the evaporation source during the evaporation of the material.

96. (Previously presented) The method according to claim 95 wherein the light emitting layer comprises an organic material.

97. (Previously presented) The method according to claim 95 wherein the evaporation source has a length exceeding 300 mm along the first direction.

98. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing an evaporation source having an elongated shape in an evaporation chamber;

disposing a substrate in the evaporation chamber;

evaporating an organic material from said evaporation source to form a light emitting layer comprising said organic material over the substrate wherein the relative position of the substrate is moved with respect to the evaporation source during the evaporation of the organic material.

99. (Previously presented) The method according to claim 98, further comprising steps of:

fixing a mask to the substrate wherein the mask is located between the substrate and the evaporation source.

100. (Previously presented) The method according to claim 98 wherein the evaporation source has a length exceeding 300 mm along the first direction.

101. (Previously presented) The method according to claim 98 wherein said electroluminescence display device is an active matrix electroluminescence display device.

102. (New) A method according to claim 20, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

103. (New) A method according to claim 20, wherein a lower surface of the substrate is provided with thin films.

104. (New) A method according to claim 20, wherein a lower surface of the substrate is provided with a transparent conducting film.

105. (New) A method according to claim 37, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

106. (New) A method according to claim 37, wherein a lower surface of the substrate is provided with thin films.

107. (New) A method according to claim 37, wherein a lower surface of the substrate is provided with a transparent conducting film.

108. (New) A method according to claim 38, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

109. (New) A method according to claim 38, wherein a lower surface of the substrate is provided with thin films.

110. (New) A method according to claim 38, wherein a lower surface of the substrate is provided with a transparent conducting film.

111. (New) A method according to claim 39, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

112. (New) A method according to claim 39, wherein a lower surface of the substrate is provided with thin films.

113. (New) A method according to claim 39, wherein a lower surface of the substrate is provided with a transparent conducting film.

114. (New) A method according to claim 40, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

115. (New) A method according to claim 40, wherein a lower surface of the substrate is provided with thin films.

116. (New) A method according to claim 40, a lower surface of the substrate is provided with a transparent conducting film.

117. (New) A method according to claim 54, wherein the substrate is located above the first evaporation source,
wherein the first material is formed on a lower surface of the substrate.

118. (New) A method according to claim 54, wherein a lower surface of the substrate is provided with thin films.

119. (New) A method according to claim 54, wherein a lower surface of the substrate is provided with a transparent conducting film.

120. (New) A method according to claim 55, wherein the substrate is located above the first evaporation source,
wherein the first material is formed on a lower surface of the substrate.

121. (New) A method according to claim 55, wherein a lower surface of the substrate is provided with thin films.

122. (New) A method according to claim 55, wherein a lower surface of the substrate is provided with a transparent conducting film.

123. (New) A method according to claim 81, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

124. (New) A method according to claim 81, wherein a lower surface of the substrate is provided with thin films.

125. (New) A method according to claim 81, wherein a lower surface of the substrate is provided with a transparent conducting film.

126. (New) A method according to claim 85, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

127. (New) A method according to claim 85, wherein a lower surface of the substrate is provided with thin films.

128. (New) A method according to claim 85, a lower surface of the substrate is provided with a transparent conducting film.

129. (New) A method according to claim 89, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

130. (New) A method according to claim 89, wherein a lower surface of the substrate is provided with thin films.

131. (New) A method according to claim 89, wherein a lower surface of the substrate is provided with a transparent conducting film.

132. (New) A method according to claim 92, wherein the substrate is located above the evaporation source,

wherein the first material is formed on a lower surface of the substrate.

133. (New) A method according to claim 92, wherein a lower surface of the substrate is provided with thin films.

134. (New) A method according to claim 92, wherein a lower surface of the substrate is provided with a transparent conducting film.

135. (New) A method according to claim 95, wherein the substrate is located above the evaporation source,

wherein the first material is formed on a lower surface of the substrate.

136. (New) A method according to claim 95, wherein a lower surface of the substrate is provided with thin films.

137. (New) A method according to claim 95, wherein a lower surface of the substrate is provided with a transparent conducting film.

138. (New) A method according to claim 98, wherein the substrate is located above the evaporation source,

wherein the organic material is formed on a lower surface of the substrate.

139. (New) A method according to claim 98, wherein a lower surface of the substrate is provided with thin films.

140. (New) A method according to claim 98, wherein a lower surface of the substrate is provided with a transparent conducting film.